NOTICE OF EXEMPTION

To: Office of Planning and Research
State Clearinghouse
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Sacramento, CA 95812-3044

From: Department of Toxic Substances Control
Southern California Permitting & Corrective Action
9211 Oakdale Avenue
Chatsworth, CA 91311

Project Title: Southern California Edison Company, Etiwanda Generating Station

Project Location: 8998 Etiwanda Avenue, Etiwanda

County: San Bernardino

Project Description: The proposed closure of three wastewater retention basins and associated pipelines.

Background:

In 1995, Southern California Edison (SCE) signed an agreement with the DTSC to clean close the surface impoundments at eleven generating stations in Southern California. This was in accordance with conditions set out in the Final Judgment and Stipulation Number 121219 handed down by the Superior Court of California. The Stipulation alleged that SCE had stored hazardous wastes in the surface impoundments without a permit. The Etiwanda Generating Station is one of the facilities cited in the agreement.

The former SCE Etiwanda Generating Station is an approximately 60-acre facility currently owned and operated by Reliant Etiwanda Energy, Incorporated. SCE sold the Etiwanda Generating Station in 1998, but retained responsibility under the contract of sale for environmental liability associated with past operation of the retention basins during the period of SCE's ownership. The retention basins had historically been used to temporarily store boiler chemical cleaning wastes that may have contained oil, grease, suspended solids, metals, and acidic solutions. The North and South retention basins were used to temporarily store boiler chemical cleaning wastes during the late 1980s to early 1990s. This cleaning process is no longer used at the site. The retention basins are open, aboveground level, and located at the north end of the site. SCE discontinued the practice of storing hazardous boiler chemical cleaning wastewater in the retention basins during the late 1980's and early 1990's. No hazardous waste was stored in the retention basins and appurtenances during the period of characterization (1996-2006). In addition, the retention basins themselves have been cleaned approximately once per year, as needed by the current owner (Reliant Energy). It should be noted that SCE is closing the Hazardous Waste Management Units, but is not physically closing the retention basins, which are necessary for continued operation of the station.

The three retention basins and their associated pipelines and appurtenances (e.g. sumps) are the hazardous waste management units (HWMUs) that are subject to this closure plan. The two retention basins (North Basin and South Basin) were constructed in 1952. The original construction was a four-inch layer of gunite over a 1.5:1 slope and on the bottom. In 1988, both basins were covered with a new liner composed of 80 mil high-density polyethylene (HDPE) liner material. The new liner was placed over the existing gunite layer. The purpose of the retention basins is to collect and store non-hazardous wastewater from the facility and to allow the wastewater to be metered systematically to a discharge point under the provisions of a NPDES permit.

The third basin was constructed as a Boiler Chemical Cleaning Basin (BCCB). This basin is rectangular in shape with plan dimensions of about 100 by 230 feet and a depth of about 8 feet. The basin has side slopes of about 5:1 and was constructed in 1979. The original liner was composed of a four-inch layer of hydraulic asphaltic concrete. In 1988, the basin was relined with three layers of 80 mil HDPE liner, each layer separated by a geotextile, and placed over the original asphaltic concrete. The geotextile would allow any leakage to drain to a separate sump for each layer. The BCCB has never been used and is considered out of service.

The Etiwanda Generating Station is located within the drainage area of Reach 5 of the Santa Ana River. Most of this reach tends to be dry, except during periods of storm flow. This channel is largely operated as a flood control facility. Chadwick Channel transects the Etiwanda Generating Station from the north to the south. This unvegetated channel is constructed of native soils. The channel terminates at a retention/energy dissipation basin north of 6th Avenue before entering the regional municipality storm collection system. Through the generating station, the channel is unvegetated and approximately 6 feet deep and 60 feet wide at the channel bottom.

The generating station discharges wastewater to the County Sanitation Districts of Los Angeles County (LACSD) through the Inland Empire Utilities Agency (IEUA) non-reclaimable industrial waste lines. The discharge consists of cooling water discharge and low-volume wastewater, which has been determined to be non-hazardous.

Site Investigation:

Field investigations have been conducted in and around the retention basin site from 1996 to 2009, in order to characterize soil, soil gas, and groundwater in areas where historical operations may have led to contamination. Chemicals of Potential Concern (COPCS), including Volatile Organic Compounds (VOCs) and metals were identified through these investigations. VOCs were not detected by Method 8260B in soil gas at the site. Some VOCs were detected in soil matrix samples. Various metals, including aluminum, arsenic, barium, copper, iron, nickel, vanadium, total chromium, manganese, and zinc had the highest detected concentrations in soil relative to the other inorganic constituents and the background data set.

Groundwater

The DTSC requested that additional site characterization data be obtained to determine the vertical extent of the detected contamination and to determine if any perched groundwater exists beneath the basins. A silty sand layer at a depth of approximately 40 feet tended to perched water. Groundwater has been estimated at a depth of 420 feet. The 420 foot vadose zone contains several thick, plastic, low permeability clay layers that would perch any leakage above the unconfined groundwater surface. No evidence of perched groundwater was encountered in deep bore-holes or shallow auger holes beneath the basins. The confined and unconfined groundwater surfaces are also protected from vertical migration by a hard, dry red clay layer. There is no direct pathway for leakage to impact the groundwater. There are no metals or VOC parameters that would indicate a change in the groundwater between background wells and compliance wells. No COPCs were detected in groundwater.

Soil

Fifteen COPCs were identified in soil for the retention basin site. Seven of these COPCs were metals, including antimony, arsenic, molybdenum, nickel, silver, and thallium. Eight of the COPCs were organic constituents, including six VOCs (chloroform, chloromethane, styrene, tetrachloroethene, toluene, vinyl chloride), one Semi-Volatile Organic C (butyl benzyl phthalate) and dioxin/furans.

Human Health Risks were estimated for future industrial workers, future construction workers, and future residents, who were assumed to be exposed to COPCs via incidental soil ingestion, dermal contact with soil, inhalation of airborne dusts, and inhalation of airborne vapors emitted from soil. The carcinogenic risks estimated for all three groups are less than or within the acceptable risk range of 10^{-6} to 10^{-4}. The carcinogenic risks estimated for both groups of workers are less than 10^{-6}, while the risk estimated for future on-site residents slightly exceeds 10^{-6}. However, this risk estimate is considered acceptable since the carcinogenic risk estimated for future on-site residential exposures to arsenic in on-site soil was determined to be identical to that for exposures to arsenic in background soil and exposures to the other COPCs results in a risk less that 10^{-6}. None of the non-carcinogenic hazard indexes exceed the target criteria of 1.

The environmental and ecological scoping-level risk assessment determined that ecological exposure pathways are incomplete because 1) no terrestrial biota were identified as biological receptors of concern, 2) biota are unlikely to contact the COPCs in subsurface soils, 3) no COPCs were identified in groundwater, and 4) groundwater is too deep for plants or animals to contact and does not discharge to nearby surface waters. Thus, biota is not likely to be exposed to the affected environmental media. Without complete exposure pathways, ecological receptors are not exposed to any COPCs in soils.

The resulting characterization reports for soil, soil gas, and groundwater have been reviewed by DTSC.
It has been determined that characterization of the retention basin site is complete and is sufficient to allow SCE to proceed with closure.

Closure Performance Standards

The closure performance standard for metals in soil and groundwater will be background, or the risk-based standards for human and ecological protection.

Summary of Proposed Closure Activities

Since all sampling and resulting characterization of the site has resulted in data that meets the site's Closure Performance Standards, no additional closure activities are proposed.

Name of Public Agency Approving Project: Department of Toxic Substances Control

Name of Person or Agency Carrying Out Project: Steve Rounds

Exemption Status: (check one)

☒ Ministerial [PRC, Sec. 21080(b)(1); CCR, Sec. 15268]
☐ Declared Emergency [PRC, Sec. 21080(b)(3); CCR, Sec.15269(a)]
☐ Emergency Project [PRC, Sec. 21080(b)(4); CCR, Sec.15269(b)(c)]
☐ Categorical Exemption: [State type and section number]
☐ Statutory Exemptions: [State code section number]
☐ General Rule [CCR, Sec. 15061(b)(3)]

Exemption Title: Title 14, Section 15061(b)(3), California Code of Regulations, with certainty, no possibility of significant environmental effect

Reasons Why Project is Exempt:

The proposed physical closure operations described in the Closure Plan are isolated within the boundaries of the site, and will not result in significant effects to human health and the environment because:

1) There is no direct pathway for leakage to impact the groundwater. The 420 foot vadose zone contains several thick, plastic, low permeability clay layers that would perch any leakage above the unconfined groundwater surface. No evidence of perched groundwater was encountered in deep bore-holes or shallow auger holes beneath the basins. The confined and unconfined groundwater surfaces are also protected from vertical migration by a hard, dry red clay layer.

2) There is no evidence of a continuous leak of wastewater to the sediments. The normal wetting front from rainfall in a semi-arid region is about fifteen to twenty feet below the ground surface. To have deeper wetting fronts requires the pressure head from a constant source of water such as a continuous leak. Evidence for a constant leak of water was not discovered during the various soil investigations. The nearly four hundred soil samples from over one hundred and forty borings have shown normal low soil moistures.

3) Data collected from groundwater samples resulted in data that would indicate no significant change from background levels.

4) The proposed closure plan has utilized DTSC's current methods of risk assessment which has conservatively evaluated the potential risk to soil and groundwater.

5) The closure plan requires that risk levels for human receptors potentially exposed to the identified contaminants of potential concern, are within USEPA and DTSC prescribed standards for clean closure.

6) The volatile organic compounds, semi-volatile organic compounds, and polychlorinated byphenols reported in soils at the site were a levels that posed no additional risk to human or ecological receptors.

7) No removal or cleanup is anticipated for soil gas at the retention basin site, due to the absence of any detections by Method 8260B.

8) The site is fully developed for industrial uses. The closest residence is over ½ mile away from the site.

9) The site is not located within a scenic highway.

Steve Rounds	Hazardous Substances Engineer	818 717 6602
Project Manager Name	Project Manager Title	Phone #

Project Manager Signature	Date

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